

ing insects of considerable size for microscopical study" (No. 8, Jan. 10, 1895); "An entomological game" (No. 28, Feb. 2, 1895); "Lamp chimney for breeding cages" (No. 30, Feb. 5, 1895); "Reference Collections—refers to the Ricksecker collection of Coleoptera and the Rivers collection of Lepidoptera at the University of California (Nos. 35-36, Feb. 11-12, 1895); "The orders of insects" (Nos. 71-76, March 27-April 2; Nos. 111-112, May 16-17, 1895); "The Smyrna fig insect" (Nos. 94-95, April 24-25, 1895); "Experiment Station entomologists" (Nos. 106-107, May 9-10, 1895); "Arsenites in Bordeaux Mixture"—in which attention is called to the fact that Prof. C. P. Gillette "first called attention to the possibility of applying an arsenite as Paris green in Bordeaux mixture with even greater safety to the plant than when applied alone, and thus save the cost of one application" (No. 26, Jan. 31, 1895). A vacation notice in No. 118, May 23, 1895, closed the series.

There is nearly a complete set of this journal in the archives of the University of California Library and the author has a set with but a single card missing. The cards have greatly deteriorated and are browned with age. The writer is able to furnish almost complete sets to libraries.

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## TRIGONOPTERUS IN THE CAROLINE ISLANDS

(Coleoptera, Curculionidæ)

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The cryptorhynchine genus *Trigonopterus* (= *Idotasia*) contains more than 80 species which are distributed from Sumatra to Samoa with the greatest development in Papua. None have heretofore been recorded from Micronesia. Bishop Museum's Micronesian Expedition of 1935-1936 procured the following striking new species of the genus from the Caroline Islands.

*Trigonopterus carolineæ* Zimmerman, new species

### Figure 1

Color: head, rostrum, club of the antennal scape, prothorax, coxæ, trochanters, bases of and usually the edges and apices of the femora, mesosternum, sides of the metasternum, basal margin and apices of the elytra black, elsewhere mostly brownish-red, the

elytra conspicuously shiny brownish-red and contrasting sharply with the shiny black pronotum, the elytra translucent; setæ yellowish to golden.

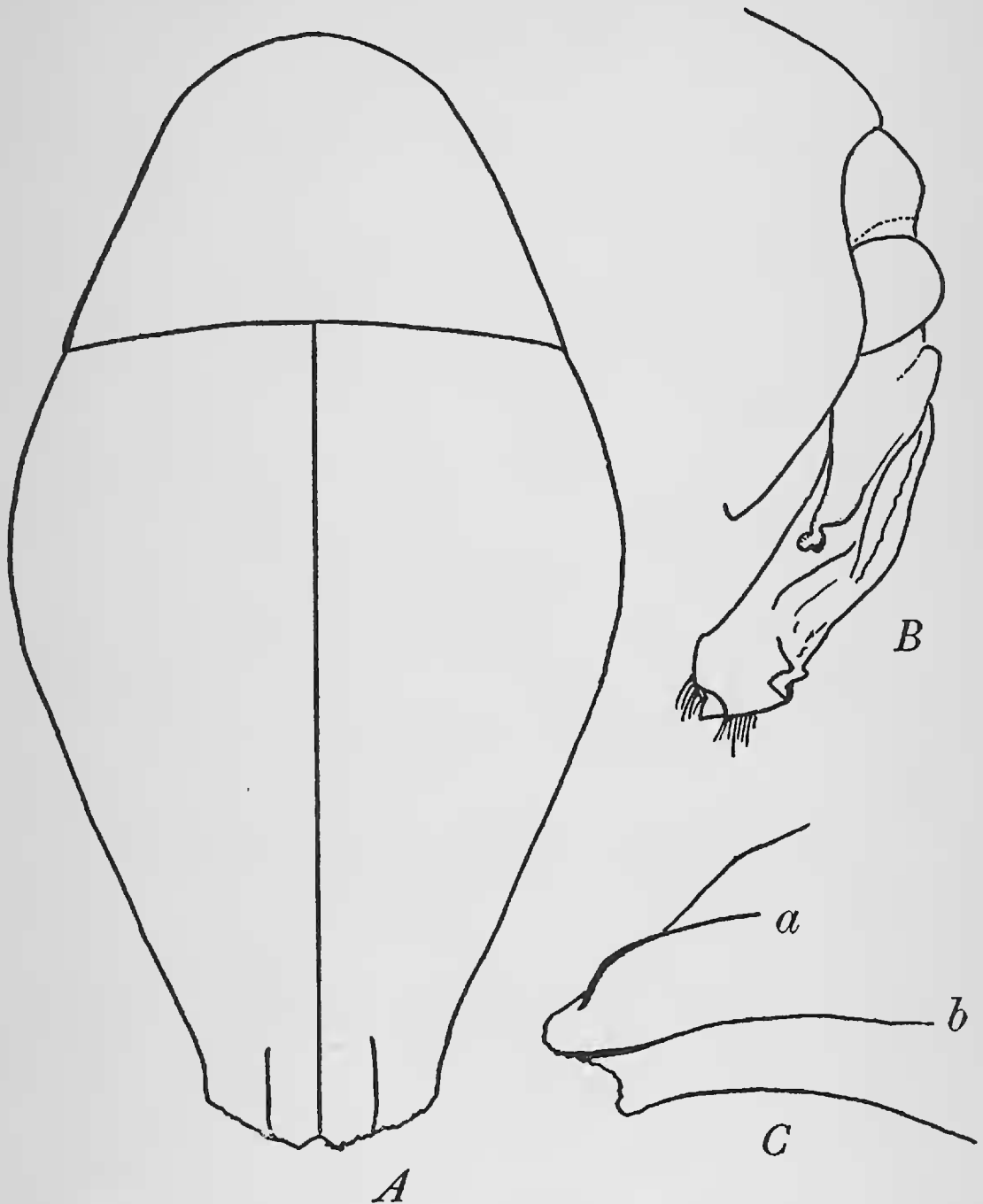


Figure 1. *Trigonopterus carolineæ* Zimmerman, new species. A, lateral outline; B, outline of head and rostrum; C, outline of side of apex of elytron, *a*, elevated second interval, *b*, elevated and coalesced intervals 7, 8 and 9.

*Head* reticulate, rather dull, the crown coarsely and densely punctate except near the pronotum; interocular area broadly, shallowly and conspicuously concave, with a very deep, coarse groove around each eye, the eyes therefore appearing protuberant, the middle of the area impunctate, the punctures on the sides and

below the middle longitudinally confluent. *Rostrum* in the male coarsely reticulate and dull throughout, with three strongly developed, coarse carinæ, exclusive of the carina above each scrobe, running from near the base to beyond the antennal insertion, the intercarinal striæ coarse, punctate, each bearing a row of erect setæ; at about one-fourth from the apex there are three conspicuous, dorsal, tubercle-like prominences on an arc of an apparent transverse ridge which are remnants of the three dorsal carinæ which have become obsolete or almost obsolete just behind the tubercles where the rostrum is depressed (see fig. 1, B); rostrum of the female more slender, the dorsal carinæ not continued beyond the antennal insertion, and from there distad rather shiny and with lines of moderately large punctures being continuations of the striæ behind the antennæ, without subapical tubercles. *Antennæ* with the scape sinuous, strongly clavate, as long as the first four funicular segments, its broadest part two and one-half times as broad as the narrowest part of the stalk; first funicular segment as long as 2, 2 about as long as 3 plus 4 plus 5, 3 to 7 each successively slightly broader; club broadly rounded at the apex, one-fourth longer than broad, about as long as the preceding five funicular segments. *Thorax* five-eighths as broad as long, base slightly sinuous, the sides evenly converging in an almost straight line to the convex apex; dorsum with a variable, rather inconspicuous impunctate median line, elsewhere closely and evenly set with medium sized oval punctures whose interstices are mostly narrower than the punctures, each puncture containing a fine, decumbent, anteriorly directed seta that hardly projects beyond the anterior margin of the puncture; dorsum evenly convex transversely and longitudinally, without a subapical constriction. *Elytra* shaped as illustrated, one and one-half times as long as broad, not quite three times as long as the prothorax, measured from the side (14:5), dorsal and lateral outlines continuous or almost continuous with those of the pronotum; none of the striæ excepting the eighth obviously impressed in the basal two-thirds, marked by series of small punctures, the punctures and the flat, broad intervals bearing microscopical setæ; stria 8 impressed and coarsely punctate from the base nearly to the second ventrite, the outer side of the stria appearing as a shelf-like ridge, the outer stria obsolete from the base about to the hind margin of the first ventrite, then becoming deeply impressed from the third ventrite to the apex; interval 2 elevated at the apex for about the length of the fifth ventrite, intervals 7, 8 and 9 forming a coalesced elevation from above the fourth ventrite to the apex, a continuation of this elevation runs from the latero-apical corner to the suture, the true margin is therefore below and anterior to the apparent margin, the area between the elevation and the margin concave; the elytral apices forming a common, variable, emargination at the suture; some of the setæ

in the hollow between the distal elevations of the coalesced intervals 7, 8 and 9 and interval 2 usually squamiform and elongate oval in shape. *Legs* with the femora not expanded distally, the punctures bearing conspicuous, prostrate setæ lying parallel to the long axis, with a stria along the lower outer margin in which the setæ are more numerous, the lower sides flattened and only shallowly concave, the outer edge not elevated into a conspicuous flange; tibiæ, excepting for the basal angulation, almost straight, each with the uncus developed and appearing to arise somewhat nearer the inner than the outer corner, none with a distinct tooth at the inner apical angle, although that angle may be acute, the fore pair with some irregular, sinuous, longitudinal carinæ between the well developed dorsal and ventral marginal carinæ on the outer side and without a very conspicuous longitudinal patch of golden setæ as found on the mid and hind tibiæ, mid and hind tibiæ without distinct carinæ on the outer side between the marginal carinæ, with more than the apical fourth of the outer side occupied by a large, conspicuous patch of stiff golden setæ that conceal an oblique carina; tarsi with the first segment slightly longer than the third, twice as long as the second, the third fully one-third broader than long and fully as long as the preceding two segments, dorsa of all segments with long, stiff setæ. *Sternum* coarsely reticulate, with the posterior surface of the mesosternal receptacle with conspicuous plumose squamæ in the male, but with simple hair-like setæ in the female; metasternum broadly concave in both sexes and with a few scattered setiferous punctures, the anterior edge broadly arcuate, about two-thirds as long along the median line as the first ventrite; mesocoxæ separated by a distance about one-fifth greater than the transverse chord of a mesocoxa. *Venter* reticulate like sternum; with the first two ventrites broadly and shallowly concave in the female, the second ventrite almost flat, both ventrites more deeply concave in the male; first ventrite with the intercoxal margin broadly arcuate, with small, scattered setiferous punctures, about as long along the median line as ventrite 2 plus one-half of 3; second ventrite as long as 3 plus 4, ventrites 2, 3 and 4 with small scattered setiferous punctures; ventrite 5 broadly concave, clothed with a dense mass of erect, thin, broad, plumose squamæ which almost completely covers the ventrite in the male but is wanting from the basal median area in the female. Length: 4.0-4.5 mm.; breadth: 2.0-2.25 mm.

Caroline Islands: Ponape Island, holotype male, allotype female and one male paratype in Bishop Museum, collected by Z. Ono at Wone, February 17, 1936.

This is a very distinct and striking species. The shiny reddish elytra make a strong contrast with the black pronotum. I know of no other species to which it is closely allied or which it resembles.